



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/650,896 | 08/28/2003 | Carolyn A. Zacks | 85649RRS | 8692 |

7590 03/13/2006

Milton S. Sales
Patent Legal Staff
Eastman Kodak Company
343 State Street
Rochester, NY 14650-2201

EXAMINER

PIZIALI, JEFFREY J

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/650,896

Applicant(s)

ZACKS ET AL.

Examiner

Jeff Piziali

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/28/03 & 3/9/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicants' cooperation is requested in correcting any errors of which applicant may become aware in the specification.
2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 29, 42, 43, and 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 29 recites the limitation "the scene" in line 3. There is insufficient antecedent basis for this limitation in the claim.
5. The term "near depth of field" in claim 42 and the term "far depth of field" in claim 43 are each relative terms rendering the claims indefinite. The terms "near depth of field" and "far depth of field" are not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It would be unclear to one having ordinary skill in the art precisely how near or far a depth of field must be before constituting either.

6. The term "generally transparent material" in claim 45 is a relative term which renders the claim indefinite. The term "generally transparent material" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It would be unclear to one having ordinary skill in the art precisely clear a material must be before constituting *generally transparent*.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Needham et al (US 5,963,371 A) in view of Atick et al (US 6,111,517 A).

Regarding claim 1, Needham discloses a method for operating a display capable of presenting content within a presentation space [Fig. 5; 30] the method comprising the steps of: defining a viewing space [Fig. 5; 33] comprising less than all of the presentation space and including the location of the person [Fig. 5; A]; and presenting content so that the presented content is discernable only within the viewing space (see Column 3, Line 50 - Column 4, Line 4).

Needham does not expressly teach locating a person in the presentation space. However, Atick does disclose locating a person in a display presentation space (see Column 3, Line 61 - Column 4, Line 2). Needham and Atick are analogous art, because they are both from the shared field of regulating/restricting private display data so that only authorized individuals are granted visual access. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use Atick's person locating system with Needham's method for operating a display, so as to provide an additional layer of security for preventing unauthorized individuals from gaining visual access to inappropriate private data.

Regarding claim 2, Atick discloses detecting changes in the location of the person during presentation of the content (see Column 6, Lines 32-37). And Needham discloses changing the viewing space so that the viewing space follows the location of the person (see Column 2, Line 54 - Column 3, Line 5).

Regarding claim 3, Needham discloses the viewing space is limited to a space that is no less than the eye separation of eyes of the person (see Fig. 5; Column 3, Line 50 - Column 4, Line 4).

Regarding claim 4, Atick discloses the viewing space is defined in part based upon a shoulder width of the person (see Column 8, Lines 8-23).

Regarding claim 5, Needham discloses the viewing space is defined at least in part by at least one of a near viewing distance comprising a minimum separation from the display at which the person can discern the content presented to the viewing space and a far viewing distance comprising a maximum distance from the display at which a person can discern content presented to the viewing space (see Fig. 5; Column 4, Lines 5-17).

Regarding claim 6, Needham discloses using the display to present content in the form of patterns of emitted light and filtering the emitted light so that the content can be discerned only in the viewing space (see Fig. 5; Column 3, Line 50 - Column 4, Line 17).

Regarding claim 7, Needham discloses using the display to present content in the form of patterns of emitted light and focusing patterns of emitted light so that the content can be discerned only in the viewing space (see Fig. 5; Column 3, Line 50 - Column 4, Line 17).

Regarding claim 8, Needham discloses using the display to present content in the form of patterns of emitted light and directing the content so that the content can be discerned only in the viewing space (see Fig. 5; Column 3, Line 50 - Column 4, Line 17).

Regarding claim 9, Atick discloses detecting at least one additional person in the presentation space (see Column 8, Lines 8-23). And Needham discloses defining an additional viewing space for each additional person and presenting the content to each viewing space (see Fig. 5; Column 2, Line 54 - Column 3, Line 18).

Regarding claim 10, Atick discloses detecting movement of a detected person outside of the presentation space during presentation of the content and automatically suspending presentation of the content to a viewing space for that person (see Column 8, Lines 8-23).

Regarding claim 11, Atick discloses presenting audio content directed to the viewing space (see Column 10, Lines 36-56).

Regarding claim 12, Needham discloses the viewing space is less than all of a vertical portion of the presentation space (see Fig. 5; Column 3, Line 50 - Column 4, Line 4).

Regarding claim 13, Needham discloses the viewing space is less than all of a horizontal portion of the presentation space (see Fig. 5; Column 3, Line 50 - Column 4, Line 4).

Regarding claim 14, this claim is rejected by the reasoning applied in rejecting claims 1 and 9; furthermore, Atick discloses detecting people in a presentation space within which content presented by the display can be observed; and identifying people in the presentation space who are authorized to observe the content (see Fig. 3A; Column 3, Line 49 - Column 4, Line 2).

Regarding claim 15, Atick discloses classifying each detected person in determining whether each detected person is authorized to observe the content, based upon the classification for that person (see Fig. 3A; Column 5, Line 54 - Column 6, Line 37).

Regarding claim 16, Atick discloses identifying each detected person and using the identity of the person to determine whether the person is authorized to observe the content (see Fig. 3A; Column 5, Line 54 - Column 6, Line 37).

Regarding claim 17, Atick discloses determining a profile for each person and using the profile for each person to determine whether the person is authorized to observe the content (see Fig. 3A; Column 5, Line 54 - Column 6, Line 37).

Regarding claim 18, Atick discloses determining a profile for the content and wherein the step of using the profile for each person to determine whether the person is authorized to observe the content comprises comparing the profile for each person to the profile for the content (see Fig. 3A; Column 5, Line 54 - Column 6, Line 37).

Regarding claim 19, Atick discloses monitoring the display space during presentation of the content to detect whether more than one person enters a common viewing space, combining the profiles of each person in the common viewing space and determining whether to present content to the common viewing space based upon the combined profiles of the viewers and the profile of the content (see Column 8, Lines 8-23).

Regarding claim 20, Atick discloses each personal profile contains viewing privileges and the content profile contains access privileges wherein the viewing privileges are combined in

an additive manner and the common viewing space is defined based upon the combined viewing privileges and the access privileges (see Column 8, Lines 8-23).

Regarding claim 21, Atick discloses the personal profiles contain viewing privileges, and the content profile contains access privileges wherein the step combining viewing privileges are combined in a subtractive manner and the presentation of the content is adjusted based upon the combined viewing privileges and the access privileges (see Column 8, Lines 8-23).

Regarding claim 22, Atick discloses the content profile contains viewing privileges associated with particular portions of the content and wherein display of particular portions of the content to the common presentation space is adjusted based upon the personal profiles of the persons in the common viewing space and the viewing privileges of associated with those particular portions (see Fig. 3A; Column 5, Line 54 - Column 6, Line 37).

Regarding claim 23, Atick discloses detecting people in the presentation space comprises capturing an image of the presentation space and analyzing the image to detect the people (see Column 3, Line 61 - Column 4, Line 2).

Regarding claim 24, Atick discloses detecting people in the presentation space comprises detecting radio frequency signals from transponders in the presentation space and identifying people in the presentation space based upon the detected radio frequency signals (see Column 1, Lines 54-61).

Regarding claim 25, Atick discloses detecting signals from sensors adapted to detect encroachment of the presentation space and adjusting the presentation of the content when such encroachment is detected (see Column 8, Lines 8-23).

Regarding claim 26, this claim is rejected by the reasoning applied in rejecting claim 1; furthermore, Needham discloses selecting one of a general display mode and a restricted display mode (see Column 2, Line 54 - Column 3, Line 5).

Regarding claim 27, Needham discloses selecting a mode based upon analysis of the content (see Column 2, Line 54 - Column 3, Line 5).

Regarding claim 28, Needham discloses selecting a mode based upon a personal profile (see Column 2, Line 54 - Column 3, Line 5).

Regarding claim 29, Needham discloses selecting a mode based upon the content of the scene (see Column 2, Line 54 - Column 3, Line 5).

Regarding claim 30, this claim is rejected by the reasoning applied in rejecting claims 1, 9, 14, and 20; furthermore, Atick discloses determining access privileges for a person to observe the content; operating the display in a first mode wherein the content is displayed to the presentation space when the access privileges are within a first range of access privileges; and

Art Unit: 2673

operating the display in a second mode when the access privileges are within a second range of access privileges wherein during the second mode (see Column 8, Lines 8-23).

Regarding claim 31, this claim is rejected by the reasoning applied in rejecting claims 1 and 6-9; furthermore, Atick discloses a presentation space monitoring system [Fig. 1; 150] generating a monitoring signal representative of conditions in the presentation space within which content presented by a display can be discerned; and a processor [Fig. 1; 110] adapted to determine the location of each person in the presentation space based upon the monitoring signal (see Column 3, Line 61 - Column 4, Line 2).

Furthermore, Needham discloses an image modulator [Fig. 5; 33, 35, 36] positioned between the display and the presentation space with the image modulator adapted to receive patterns of light presented by the display and to modulate the patterns of light emitted by the display so that the patterns of light are discernable only within spaces defined by the image modulator; and a processor [Fig. 6a; 60] to determine a viewing space for each person in said presentation space comprising less than all of the presentation space and also including the location of each person; wherein the processor causes the image modulator to modulate the light emitted by the display so that the pattern of light emitted by the display is discernable only in the viewing space (see Column 3, Line 50 - Column 4, Line 4).

Regarding claim 32, this claim is rejected by the reasoning applied in rejecting claim 23.

Regarding claim 33, this claim is rejected by the reasoning applied in rejecting claim 24.

Regarding claim 34, this claim is rejected by the reasoning applied in rejecting claim 25.

Regarding claim 35, this claim is rejected by the reasoning applied in rejecting claim 2.

Regarding claim 36, this claim is rejected by the reasoning applied in rejecting claim 3.

Regarding claim 37, this claim is rejected by the reasoning applied in rejecting claim 4.

Regarding claim 38, this claim is rejected by the reasoning applied in rejecting claim 5.

Regarding claim 39, this claim is rejected by the reasoning applied in rejecting claim 6.

Regarding claim 40, this claim is rejected by the reasoning applied in rejecting claim 7.

Regarding claim 41, this claim is rejected by the reasoning applied in rejecting claim 8; furthermore; Needham discloses an array of array of lenslets [Fig. 5; 30, 33, 35, 36] adapted to direct light in a plurality of directions and wherein the processor causes the display to present images in a manner such that the images are visible in one of the directions (see Column 3, Line 50 - Column 4, Line 4).

Regarding claim 42, this claim is rejected by the reasoning applied in rejecting claim 7; furthermore; Needham discloses light forms an image only after a near depth of field (see Column 3, Line 50 - Column 4, Line 4).

Regarding claim 43, this claim is rejected by the reasoning applied in rejecting claim 7; furthermore; Needham discloses light forms an image only after a far depth of field (see Column 3, Line 50 - Column 4, Line 4).

Regarding claim 44, this claim is rejected by the reasoning applied in rejecting claim 8; furthermore; Needham discloses a set of baffles [Fig. 5; 30, 33, 35, 36] that direct light to the viewing space (see Column 3, Line 50 - Column 4, Line 4).

Regarding claim 45, Needham discloses a coherent fiber optic bundle [Fig. 5; 30, 33, 35, 36] which provides a channel structure of paths of generally transparent material (see Column 3, Line 50 - Column 4, Line 4).

Regarding claim 46, Needham discloses an array of individual micro-lens [Fig. 5; 30, 33, 35, 36] having physical light absorbing barriers between each micro-lens (see Column 3, Line 50 - Column 4, Line 4).

Regarding claim 47, this claim is rejected by the reasoning applied in rejecting claim 9.

Regarding claim 48, this claim is rejected by the reasoning applied in rejecting claim 10.

Regarding claim 49, this claim is rejected by the reasoning applied in rejecting claim 11.

Regarding claim 50, this claim is rejected by the reasoning applied in rejecting claims 1, 6-9, 14, and 31.

Regarding claim 51, this claim is rejected by the reasoning applied in rejecting claim 15.

Regarding claim 52, this claim is rejected by the reasoning applied in rejecting claim 16.

Regarding claim 53, this claim is rejected by the reasoning applied in rejecting claim 17.

Regarding claim 54, this claim is rejected by the reasoning applied in rejecting claim 18.

Regarding claim 55, this claim is rejected by the reasoning applied in rejecting claim 19.

Regarding claim 56, this claim is rejected by the reasoning applied in rejecting claim 20.

Regarding claim 57, this claim is rejected by the reasoning applied in rejecting claim 21.

Regarding claim 58, this claim is rejected by the reasoning applied in rejecting claim 22.

Regarding claim 59, this claim is rejected by the reasoning applied in rejecting claim 15.

Regarding claim 60, this claim is rejected by the reasoning applied in rejecting claims 1, 6-9, 26, and 31.

Regarding claim 61, this claim is rejected by the reasoning applied in rejecting claim 18.

Regarding claim 62, this claim is rejected by the reasoning applied in rejecting claim 17.

Regarding claim 63, Needham discloses user controls wherein the step of selecting one of a general display mode and a restricted display mode comprises selecting a mode based upon a signal from the user control (see Column 2, Line 54 - Column 3, Line 5).

Regarding claim 64, this claim is rejected by the reasoning applied in rejecting claims 1, 9, and 31.

Regarding claim 65, this claim is rejected by the reasoning applied in rejecting claim 46.

Regarding claim 66, this claim is rejected by the reasoning applied in rejecting claim 41.

Regarding claim 67, this claim is rejected by the reasoning applied in rejecting claim 46.

Regarding claim 68, this claim is rejected by the reasoning applied in rejecting claims 1, 18, 30, and 31.

Regarding claim 69, this claim is rejected by the reasoning applied in rejecting claim 11.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Struyk (US 6,980,177 B2), Janick et al (US 6,765,550 B2), Stern et al (US 6,597,328 B1), Dudasik (US 6,552,850 B1), Dunn et al (US 6,529,209 B1), Marx (US 6,262,843 B1), Moseley et al (US 6,124,920 A), Chikazawa (US 5,852,512 A), Parikh et al (US 5,801,697 A), Borner (US 5,661,599 A), McManis (US 5,629,984 A), Ferguson (US 5,629,806 A), Smith et al (US 5,107,443 A), Ichinose et al (US 4,987,487 A), Berman (US 4,879,603 A), and Du Mont

Art Unit: 2673

(US 2,832,821 A) are cited to further evidence the state of the art pertaining to operating displays.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J.P.
6 March 2006



BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600